

## Emergency Response Synchronization Matrix (ERSM)

### APPLICATIONS

- Government complexes
- Utilities
- Critical industry facilities
- Seaports and airports
- School districts
- Military bases
- Event facilities

### BENEFITS

- Enhances response planning for emergencies
- Improves emergency response exercise design and evaluation
- Integrates plans within and across jurisdictions
- Ensures response actions are coordinated and scheduled
- Pre-testing tool illustrates results and effects of response activities
- Provides a blueprint for future emergency plans

### LINKS TO ONLINE INFORMATION

[ERSM – Emergency Response Synchronization Matrix](#)

[IJMED - International Journal of Mass Emergencies and Disasters](#)

[IRCD - International Research Committee on Disasters](#)

### An Improved Systems-Based Approach to Emergency Response and Preparedness

The current events shaping our world demand emergency plans that are integrated, scalable, efficient and easy to implement. The development of effective and coordinated crisis response plans presents a major challenge to emergency planning professionals throughout the government and commercial sector. As 9/11 proved, the number of participants and jurisdictions that respond to an emergency



and their ability to be in sync can have a major impact on survival rates and crisis response times.

Argonne National Laboratory has developed the Emergency Response Synchronization Matrix (ERSM) to meet this growing, complex problem. **ERSM** has proven to be efficient and effective in more than 30 installations, including the Chemical Stockpile Emergency Preparedness Program established by the U.S. Army and Federal Emergency Management Agency.

**ERSM** provides a user friendly, proven software-based system for developing, maintaining, and executing coordinated intra- and inter-jurisdictional emergency response plans. It provides the uniform structure and protocol that allows the integration of the plans used by multiple jurisdictions onto on a single platform. The system runs on Pentium-based personal computers.

## OVERVIEW: Argonne Homeland Security Technologies

### CONTACT INFORMATION

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### ABOUT ARGONNE TECHNOLOGY TRANSFER

Argonne National Laboratory is committed to developing and transferring new technologies that meet industry's goals of improving energy efficiency, reducing wastes and pollution, lowering production costs, and improving productivity. Argonne's industrial research program, comprised of leading-edge materials research, cost-saving modeling, and unique testing and analysis facilities, is providing solutions to the challenges that face U.S. manufacturing and processing industries.

**ERSM** improves emergency planning, enhances emergency response exercise design and evaluation, and serves as an efficient response implementation and management tool. It eliminates the difficulties associated with preparing coordinated emergency plans. It simultaneously organizes and displays multiple plans by jurisdiction, function, and time for easy review and analysis. It also provides feedback that helps planners identify needed improvements in plans, procedures, and coordination and training requirements. **ERSM** helps ensure that all involved response agencies—federal, state, tribal, municipal, and volunteer organizations—can execute a unified response to an emergency situation.

#### ERSM Features

##### Enhanced planning:

- Serves as an outline for a written emergency response plan
- Ensures that plans are integrated both within and across jurisdictions to allow examination of the overall response
- Provides a thorough review of existing emergency response plans and procedures
- Offers a blueprint for future emergency response plan revisions

##### Enhanced exercise design and evaluation:

- As an exercise-design tool, **ERSM** develops a robust, simulated event for realistic participant response
- As an exercise-control tool, **ERSM** ensures that messages are injected at the appropriate time, based on actions
- Assists evaluators in analyzing exercise activities in relationship to each jurisdiction's plans and procedures
- Serves as a guide for conducting after-action reviews with exercise participants

##### As an implementation and management tool:

- Enables responding jurisdictions to know how they fit into the response as it progresses
- Helps jurisdictions actively track how their departments and agencies are progressing in meeting their responsibilities in the overall emergency response
- Easy pre-testing identifies potential effects of response activities if they occurred earlier or later than originally planned

“After several years of testing and exercising multi-agency/multi-jurisdictional response actions, we thought our emergency operations plans were in good shape. However, the synchronization matrix process provided us a better view of the big picture with the ability to ‘zoom in’ and carve detail in areas needing attention.” (Kari Sagers, Director, Tooele County Emergency Management Agency, Utah)

